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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/540,236

10/17/2005

Philippe Hocquet

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EXAMINER

FULLER, ROBERT EDWARD

ART UNIT

PAPER NUMBER

3676

MAIL DATE

DELIVERY MODE

06/17/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/540,236	<b>Applicant(s)</b> HOCQUET ET AL.	
	<b>Examiner</b> ROBERT E. FULLER	<b>Art Unit</b> 3676	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 April 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5,9-11,14-17,19 and 23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5,9-11,14-17,19 and 23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. Applicant's submission, filed April 16, 2009, has been carefully considered. The objections to the claims and to the drawings set forth in the previous Office Action have been withdrawn. Examiner has also withdrawn the rejections under 35 U.S.C. 112. However, examiner maintains the prior art rejections set forth in the previous Office Action.

2. Claims 1-5, 9-11, 14-17, 19, and 23 are pending.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-5, 9-11, 14-17, and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Ioanesian et al. (US 3,728,040).

With regard to claim 1, Ioanesian discloses a drilling apparatus comprising: a turbine (1) being provided with a turbine shaft (7), a hydraulic braking device (15) configured to operate with the turbine wherein the hydraulic braking device comprises at least one body (11, 13) connected to said turbine shaft, and wherein when said hydraulic braking device is immersed in a fluid medium, rotation of the turbine shaft about its axis causes a movement of the said at least one body with respect to the said fluid medium, this movement generating a resisting torque that is a function of the square of the rotation speed of the turbine shaft with respect to the said fluid medium.

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With regard to claims 2-5, loanesian discloses a braking shaft (the lower half of shaft 7) coupled to the said turbine shaft (the upper half of shaft 7), wherein the body is connected to the braking shaft. The shafts are coaxial, they rotate together and are combined into a single shaft.

With regard to claim 9, the body rotates when the turbine shaft rotates.

With regard to claims 10 and 11, the body is connected to the shaft via a connecting means comprising an anchor zone.

With regard to claims 14-17, the bodies are spaced in a regular manner, have the same axial positions, are identical, and have the same dimensions.

With regard to claim 23, loanesian discloses a turbine (1) comprising: a turbine shaft (7) and; a hydraulic braking device (15) comprising at least one body (11, 13) connected to said turbine shaft (4); wherein when said hydraulic braking device is immersed in a fluid medium, rotation of the turbine shaft about its axis causes a movement of the said at least one body with respect to the said fluid medium, this movement generating a resisting torque that is a function of the square of the rotation speed of the turbine shaft with respect to the said fluid medium.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over loanesian et al.

loanesian discloses the braking device being upstream of the turbine, rather than downstream. However, it would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have arranged to have modified loanesian so that the braking device was downstream of the turbine, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

***Response to Arguments***

7. Applicant's arguments filed April 16, 2009 have been fully considered but they are not persuasive. Applicant has argued that loanesian discloses a linear relationship between torque and speed, rather than a squared relationship. Applicant further argued that it is the examiner's burden to prove that a squared relationship is inherent in loanesian. Examiner respectfully disagrees. The claims merely require the braking device to comprise a body connected to a turbine shaft. It is clear that loanesian discloses at least a body connected to a turbine shaft. The claims do not define any of the structural differences between applicant's disclosed invention and loanesian's invention. Therefore, examiner can only conclude that if a turbine shaft has a body connected to it, it must have a squared relationship between resisting torque and speed. Applicant's refusal to provide any evidence why loanesian does *not* disclose a squared relationship only reinforces the examiner's conclusion. In fact, applicant has not provided any evidence that the equation provided on page 4, line 27, is not true for *all* hydraulic braking devices. Applicant states in line 23 of page 4, that "this relation [is] obtained by use of one of Newton's laws." A relationship derived from a law should always be true.

Furthermore, simply for the sake of argument, the claims do not define what the "function" actually is. Broadly, this "function" could involve taking the square root of the square of the rotation speed of the turbine shaft with respect to the fluid medium. This would imply a linear torque-speed relationship. Examiner does not acquiesce that loanesian discloses a linear relationship, examiner is merely pointing out that a linear

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relationship is actually within the scope of claims 1 and 23. Therefore, the rejection is maintained.

### ***Conclusion***

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT E. FULLER whose telephone number is (571)272-0419. The examiner can normally be reached on Monday thru Friday from 8:00 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer H. Gay can be reached on 571-272-7029. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Shane Bomar/  
Primary Examiner, Art Unit 3676

06/09/2009  
REF